## High-dimensional time series analysis

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## Abstract

Based on the discussions of the first talk, we start the talk with analysis of dependent big data. In particular, we consider the case when the dimension of the multivariate time series is increasing. We emphasize the concept of parsimony in addition to sparsity. Simple examples and simulations are used to demonstrate the limitations of the conventional methods developed for independent data or for multivariate time series analysis when the dimension is fixed. Some methods are introduced to handle dependent big data. Finally, we mention some possible directions for further research in high-dimensional time series analysis.